

ENERGY AND ENVIRONMENT CABINET

Department for Environmental Protection

Division of Water

(Amendment)

401 KAR 5:045. Biochemically degradable wastes; treatment.

RELATES TO: KRS 224.10-100~~[(1), (5), (15), (19), (21), (23)]~~, 224.70-100, 224.70-110

STATUTORY AUTHORITY: KRS ~~[224.01-110(6),]~~ 224.10-100~~(19), (21) [(47)]~~

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(19) requires the cabinet to issue, continue in effect, revoke, modify, suspend, or deny permits to discharge into waters of the Commonwealth. KRS 224.10-100(21) authorizes the cabinet to require technological levels of treatment and effluent limitations. This administrative regulation ~~[This administrative regulation is necessary to implement KRS 224.10-100(1), (5), (15), (19), (21), (23), 224.70-100 and 224.70-110. It]~~ requires a minimum of secondary treatment or best conventional pollutant control technology for a facility that receives ~~[where applicable for all facilities which received]~~ biochemically degradable wastes ~~[, and additional treatment in certain situations. The administrative regulation requires that such treatment facilities receiving such wastes reapply to the cabinet 150 days prior to the expiration of the current permit for a permit to continue operating].~~

Section 1. ~~[Definitions. The following definitions and conditions apply to terms used in Sections 3 and 4 of this administrative regulation:~~

~~(1) "Grab sample" means a single instantaneous portion of the effluent.~~

1       ~~(2) "Composite sample" means:~~

2       ~~(a) Not less than four (4) effluent portions collected at regular intervals over a period of eight~~  
3 ~~(8) hours and combined in proportion to flow;~~

4       ~~(b) Not less than four (4) combined equal volume effluent portions collected over a period~~  
5 ~~of eight (8) hours at intervals proportional to flow;~~

6       ~~(c) An effluent portion collected continuously over a period of twenty four (24) hours at a rate~~  
7 ~~proportional to the flow; or~~

8       ~~(d) An effluent portion consisting of a minimum of four (4) combined equal volume grab~~  
9 ~~samples taken approximately two (2) hours apart.~~

10       ~~(3) "Arithmetic mean for thirty (30) consecutive days" means the average of a minimum of~~  
11 ~~three (3) samples collected in separated calendar weeks during a period of thirty (30) consecutive~~  
12 ~~days with a minimum of twenty (20) days occurring between the first and last sample days.~~

13       ~~(4) "Arithmetic mean for seven (7) consecutive days" means the average of a minimum of two~~  
14 ~~(2) samples taken on separate days in a seven (7) day period.~~

15       ~~(5) the samples for determining a values of biochemical oxygen demand and suspended solids~~  
16 ~~shall be composite samples. The samples for determining the values of fecal coliform bacteria and~~  
17 ~~pH shall be grab samples and taken at the applicable frequency as noted in subsections (3) and (4)~~  
18 ~~of this section.~~

19       ~~(6) "Day" means a twenty four (24) hour period.~~

20       ~~(7) "Cabinet" means the Environmental and Public Protection Cabinet.~~

21       Section 2.] Applicability.

22       ~~(1) A facility that receives [All facilities discharging into waters of the Commonwealth which~~  
23 ~~receive] an influent that [which] is biochemically degradable and discharges into waters of the~~

Commonwealth shall provide a minimum of secondary treatment to that influent prior to its discharge.

(2) A facility ~~[If other constituents are present, additional treatment may be required. Those facilities]~~ subject to ~~[best conventional pollutant control technology]~~ treatment requirements established in ~~[pursuant to]~~ 401 KAR 5:080, Section 2 ~~[1(2)(a)2b]~~ shall be exempt from the requirements of this administrative regulation.

Section 2. Secondary Treatment. ~~[3. "]~~Secondary treatment shall be the ~~["is that]~~ degree of treatment that ~~[which]~~ results in an effluent quality that ~~[which]~~ meets the ~~[following]~~ minimum requirements:

(1) Biochemical oxygen demand, five (5) days.

(a) The arithmetic mean of the values for effluent samples collected during a period of thirty (30) consecutive days shall not exceed thirty (30) milligrams per liter.

(b) The arithmetic mean of the values for effluent samples collected during a period of seven (7) consecutive days shall not exceed forty-five (45) milligrams per liter; and ~~[-]~~

(2) Suspended solids. ~~[These requirements shall be achieved except as provided for in subsection (3) of this section.]~~

(a) The arithmetic mean of the values for suspended solids in effluent samples collected during a period of thirty (30) consecutive days shall not exceed thirty (30) milligrams per liter.

(b) The arithmetic mean of values for suspended solids in effluent samples collected during a period of seven (7) consecutive days shall not exceed forty-five (45) milligrams per liter.

Section 3. Continuation of a Permit. A

~~[(3) Suspended solids requirements for waste stabilization ponds which are employed as the sole process for secondary treatment and have a maximum facility design capacity of 2,000,000 gallons~~

~~per day or less and where operation and maintenance data indicate that the requirements of subsection (2)(a) and (b) of this section cannot be achieved shall be equal to that which is achievable with best waste stabilization pond technology. Best waste stabilization pond technology is defined as the effluent concentration achieved ninety (90) percent of the time within the Commonwealth of Kentucky or appropriate contiguous geographical area by waste stabilization ponds that are achieving the levels of effluent quality established for biochemical oxygen demand in subsection (1) of this section. This suspended solids value will be determined by the cabinet.~~

~~Section 4. Additional requirements for all facilities discharging into the waters of the Commonwealth which receive an influent which is biochemically degradable is that degree of treatment which results in an effluent quality which meets the following minimum requirements:~~

~~(1) Fecal coliform bacteria.~~

~~(a) The geometric mean of the value for fecal coliform bacteria in samples collected during a period of thirty (30) consecutive days shall not exceed 200 colonies per 100 milliliter.~~

~~(b) The geometric mean of the values for fecal coliform bacteria in samples collected during a period of seven (7) consecutive days shall not exceed 400 colonies per 100 milliliters.~~

~~(c) For operational purposes paragraphs (a) and (b) of this subsection need only be met during the recreational season of May 1 through October 31. In other months the values stipulated in 401 KAR 5:031, Section 7(2)(a), shall be met.~~

~~(2) pH. The values for pH shall not be less than six (6) units nor more than nine (9) units.~~

~~Section 5. Treatment in excess of that required under Section 2 of this administrative regulation for influents which are biochemically degradable shall be required for a continuous facility discharge where:~~

~~(1) The cabinet determines that the receiving waters will not satisfy applicable water quality~~

standards as a result of a facility discharge or discharges from multiple facilities.

(2) The cabinet determines that a facility lacks the sophistication of process to consistently produce the required effluent quality.

~~Section 6. (1) Any~~ person responsible for an existing facility that ~~[as described in Section 2 of this administrative regulation which]~~ receives biochemically degradable influent and discharges into waters of the Commonwealth shall apply ~~[150 days prior to the expiration of the current permit make application to the cabinet]~~ for a permit to continue to discharge to the waters of the Commonwealth 180 days prior to the expiration of the current permit.

~~[(2) If the cabinet determines, from available information or information requested from the applicant, that an existing facility does not or may not produce an effluent with parameter measurements equal to or less than that specified in Sections 3 and 4 of this administrative regulation, it shall require the applicant to submit plans and specifications or other data showing how the facility will be brought into compliance.~~

~~(3) If the facility's effluent parameters are equal to or less than that required in Sections 3 and 4 of this administrative regulation, an operating permit shall be issued to the applicant.~~

~~(4) If the facility's effluent does not satisfy the requirements of Sections 3 and 4 of this administrative regulation, the cabinet may issue the applicant a permit to upgrade the facility, provided:~~

~~(a) No such permit shall be issued unless the cabinet has received and approved a compliance schedule to bring a facility into compliance at the earliest date.~~

~~(b) A compliance schedule shall contain a commitment from the applicant to achieve increments of progress to be completed on specified dates.~~

~~(c) At a minimum, the increments shall include a date for submitting any additional plans and~~

1 ~~specifications required for construction, a date for commencement of construction and a date for~~  
2 ~~completion of construction.~~

3 ~~(d) Upon request from the cabinet, the applicant shall provide the cabinet with periodic reports~~  
4 ~~regarding progress towards compliance schedule increments.~~

5 ~~(5) Failure to meet the dates set forth in a compliance schedule shall constitute a violation of~~  
6 ~~KRS 224.70-110 unless an alternate date has been negotiated by the person responsible for a~~  
7 ~~facility and has been approved in writing by the cabinet. ]~~

401 KAR 5:045 “Biochemically degradable wastes; treatment” approved for promulgation:

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Date

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Leonard K. Peters, Secretary  
Energy and Environment Cabinet

PUBLIC HEARING AND PUBLIC COMMENT PERIOD: A public hearing on this administrative regulation shall be held on March 23, 2010 at 5:00 P.M. (Eastern Time) at 300 Fair Oaks Lane, Conference Room 301D, Frankfort, Kentucky. Individuals interested in being heard at this hearing shall notify this agency in writing by March 16, 2010, five workdays prior to the hearing, of their intent to attend. If no notification of intent to attend the hearing is received by that date, the hearing may be canceled. This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made. If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until March 31, 2010. Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

CONTACT PERSON: Abigail Powell, Regulations Coordinator  
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## REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Administrative Regulation #: 401 KAR 5:045

Contact Person: Peter T. Goodman, Assistant Director

**(1) Provide a brief summary of:**

- (a) What this administrative regulation does:** This administrative regulation requires a minimum of secondary treatment or best conventional pollutant control technology for a facility that receives biochemically degradable wastes.
- (b) The necessity of this administrative regulation:** KRS 224.10-100(19) authorizes the cabinet to issue, continue in effect, revoke, modify, suspend or deny under such conditions as the cabinet may prescribe, permits to discharge into any waters of the Commonwealth. KRS 224.10-100(21) authorizes the cabinet to require technological levels of treatment and effluent limitations.
- (c) How this administrative regulation conforms to the content of the authorizing statutes:** KRS 224.10-100(19)(c) authorizes the cabinet to issue permits for the establishment or construction and the operation or maintenance of waste disposal sites and facilities. KRS 224.10-100(21) authorizes the cabinet to require technological levels of treatment and effluent limitations. This regulation establishes the minimum of secondary treatment or best conventional pollutant control technology for a facility that receives biochemically degradable wastes under the authority granted the cabinet by those statutes.
- (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes:** This regulation establishes clear guidelines for acceptable minimum levels of secondary treatment or best conventional pollutant control technology for facilities that receive biochemically degradable wastes.

**(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:**

- (a) How the amendment will change this existing administrative regulation:** This amendment revises ambiguous terms in accordance with KRS 13A and corrects inconsistencies with other regulations in this chapter. The primary change in requirements is that the regulated entity must apply to continue a permit 180 before it expires, instead of 150 days. This is consistent with the requirements of other KPDES and KNDOP regulations.
- (b) The necessity of the amendment to this administrative regulation:** This amendment will clarify ambiguous terms and establish clear guidelines for minimum secondary treatment or best conventional pollutant control technology that is internally consistent with other cabinet regulations.
- (c) How the amendment conforms to the content of the authorizing statutes:** This amendment conforms to KRS 224.10-100(19)(c), which authorizes the cabinet to issue permits for the establishment or construction and the operation or maintenance of waste disposal sites and facilities, and KRS 224.10-100(21), which authorizes the cabinet to require technological levels of treatment and effluent limitations.
- (d) How the amendment will assist in the effective administration of the statutes:** The amendment will aid in carrying out the goals of KRS 224. The amendment removes ambiguities within the regulation.

**(3) List the type and number of individuals, businesses, organizations, or state and local**

**governments affected by this administrative regulation:** This amendment affects individuals, businesses, and organizations that are engaged in the regulated disposal of treated wastewater under the KPDES and KNDOP permitting programs. This administrative regulation potentially affects approximately 2,000 existing permitted entities. The primary change in requirements is that the regulated entity must apply to continue a permit 180 before it expires, instead of 150 days. This is consistent with the requirements of other KPDES and KNDOP regulations.

**(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:**

**(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment:** Regulated entities will not have to take any additional action to comply with this administrative regulation. The amendments to this administrative regulation remove inconsistencies between this regulation and other state regulations.

**(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3):** None of the entities identified in question (3) is expected to incur additional costs.

**(c) As a result of compliance, what benefits will accrue to the entities identified in question (3):** The regulated community affected by this regulation will not be confused by inconsistencies between this regulation and other state regulations.

**(5) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:**

**(a) Initially:** No additional cost is anticipated.

**(b) On a continuing basis:** No additional cost is anticipated.

**(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation?** Existing permit fees, general funds, and EPA funds. This amendment does not change any source of funding.

**(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment:** No additional fees or funding will be necessary to implement the amendment to this administrative regulation.

**(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees:** This amendment does not directly or indirectly establish fees.

**(9) TIERING: Is tiering applied? (Explain why or why not)** Tiering is not applied.

**FISCAL NOTE ON STATE OR LOCAL GOVERNMENT**

**Regulation #:** 401 KAR 5:045

**Contact Person:** Peter T. Goodman, Assistant Director

- 1. Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)?**

Yes   X   No       

- 2. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?**

This regulation affects wastewater treatment systems that discharge to waters of the Commonwealth. This amendment affects all units of state or local government that have a KPDES discharge permit.

- 3. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation.**

KRS 224.10-100

- 4. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.**

**(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year?** This amendment is not expected to impact revenue.

**(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years?** None

**(c) How much will it cost to administer this program for the first year?** No additional cost is expected.

**(d) How much will it cost to administer this program for subsequent years?** No additional cost is expected.

**Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.**

**Revenues (+/-):**

**Expenditures (+/-):**

**Other Explanation:**